



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,743	02/23/2004	Dany Sylvain	7000-272	2454

27820 7590 08/09/2007
WITHROW & TERRANOVA, P.L.L.C.
100 REGENCY FOREST DRIVE
SUITE 160
CARY, NC 27518

EXAMINER

KIM, WESLEY LEO

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

08/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/784,743

Applicant(s)

SYLVAIN, DANY

Examiner

Wesley L. Kim

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 30-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 30-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Amendment filed 5/21/07.
 - Claims 1 and 30 are currently amended.
 - Claims 1-15 and 30-44 are pending in the current Office Action.

Response to Arguments

2. Applicant's arguments with respect to claims 1-15 and 30-44 have been considered but are moot in view of the new ground(s) of rejection. Although the examiner has used the same primary reference of Kallio, the examiner has applied the art in a different manner, in response to the amendment, which is the basis for a new grounds of rejection.
 - Applicant argues that Kallio does not teach a call comprising a first and a second connection, establishment of a third connection via a terminal adapter, and then providing a handoff instruction to the wireless switch to connect the second and third connections to effect handoff of the call from the cellular connection to the local wireless connection.

The examiner respectfully disagrees. Kallio teaches the call comprising a first connection from the wireless switch to the mobile terminal (Par.43;1-4 and Fig.4; initially the wireless switch, i.e. BSC 114, is connected to the mobile terminal 150) and a second connection between the wireless switch and an entity (Par.24;30-35, mobile station 150 is obviously in a conversation with another entity, which is the second connection);

b) effecting establishment of a third connection to the mobile terminal via a terminal adaptor, which supports local wireless communications with the mobile terminal (Par.43;13-16 WLAN cell broadcasts local wireless communications via the terminal adaptor, i.e. WMC, to the mobile station); and

c) providing a handoff instruction to the wireless switch to connect the second and third connections to effect handoff of the call from the cellular connection to the local wireless connection (Par.50;5-7 and Par.50;12-15, handoff instructions are sent to a mobile station via the BSS (i.e. BSC) to connect the second and third connections to effect handoff).

- Applicant argues that based on Fig.1 and the examiners arguments that the WMC does not comprise a WMC switch and a WLAN access point.

The examiner respectfully disagrees. To the examiner the teaching provided in the Fig.1, 210 is teaching that the WMC comprise a WMC switch and a WLAN access point, even though it is not recited as so in the body of the specification, since the drawings are also part of the specification. Further a switch is described as an electronic device which completes or breaks an electrical path in Newton's Telecom Dictionary 18th updated and expanded edition.

- Applicant argues that there is no motivation provided for claims 4 and 33 and the same for claims 6 and 35.

The examiner respectfully disagrees. The examiner provided a motivation for claims 4 and 33, "to provide a method for the gateways to convert the

messages into the correct format before transmitting them to the other network so that the communications between the originator and the destination can remain stable and reliable throughout the handoff process”.

The examiner further provided a motivation for claims 6 and 35, “to provide a method where a mobile terminal can roam between different networks that support subscriber mobility, which allows a call to be routed to the called subscriber terminal in the respective network”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1-2, 7-15 and 30-31, 36-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Kallio (U.S. Pub 2002/0147008 A1).

Regarding Claims 1 and 30, Kallio teaches a method of transitioning a call with a mobile terminal from a cellular connection to a local wireless connection (Par.43:1-4) the method comprising:

a) receiving a handoff request from a wireless switch supporting a call to the mobile terminal over a cellular access network (Par.49:1-4, BSS comprising BSC

indicates a handover request), the call comprising a first connection from the wireless switch to the mobile terminal (Par.43;1-4 and Fig.4; initially the wireless switch, i.e. BSC 114, is connected to the mobile terminal 150) and a second connection between the wireless switch and an entity (Par.24;30-35, mobile station 150 is obviously in a conversation with another entity, which is the second connection);

b) effecting establishment of a third connection to the mobile terminal via a terminal adaptor, which supports local wireless communications with the mobile terminal (Par.43;13-16 WLAN cell broadcasts local wireless communications via the terminal adaptor, i.e. WMC, to the mobile station); and

c) providing a handoff instruction to the wireless switch to connect the second and third connections to effect handoff of the call from the cellular connection to the local wireless connection (Par.50;5-7 and Par.50;12-15, handoff instructions are sent to a mobile station via the BSS (i.e. BSC) to connect the second and third connections to effect handoff).

Regarding Claims 2 and 31, Kallio further teaches the third connection is established in part between a wireline switch (Col.28-29 and Fig.1;210, WMC SW is the wireline switch and is capable of handing-over communications between different networks, i.e. switching) and the terminal adaptor (Fig.1;210 WMC is also a WLAN access point).

Regarding Claims 7 and 36, Kallio further teaches the third connection is established in part over a packet network operatively coupled to the terminal adaptor (Par.33; Packet network coupled to the terminal adaptor).

Regarding Claims 8 and 37, Kallio further teaches the handoff request is received and the handoff instructions are provided using a cellular protocol (Par.49 and Table in pg.6 #4, BSC indicates handover) while the establishment of the third connection is effected using a packet-based communication session protocol (Par.50;14-15, when WLAN is used packet protocols are used).

Regarding Claims 9 and 38, Kallio further teaches the third connection is established in part between a first media gateway (Fig.4;310) and the mobile terminal (Fig.1;150) through the terminal adaptor (Fig.1;210, WLAN access point), the first media gateway connected to the wireless switch via a cellular-based trunk (Fig.4; the gateway is connected to the MSC), the method further comprising sending control messages to the first media gateway and the mobile terminal to establish the third connection (Par.49; handover request sent via gateway to establish the third connection).

Regarding Claims 10 and 39, Kallio further teaches the first media gateway facilitates inter-working between the cellular-based trunk and a packet-based session forming part of the third connection (Par.49;1-4, AGW and Fig.4;310, the gateway facilitates interworking between the cellular-based trunk (i.e. MSC) and a packet-based session forming part (Fig.4;230) of the third connection).

Regarding Claims 11 and 40, Kallio further teaches providing a handoff message to the wireless switch to confirm handoff to the third connection (Par.50;11-12).

Regarding Claim 12-15 and 41-44, Kallio further teaches the handoff request comprises a cell site identifier to which the wireless switch is attempting to handoff the call (Par.46;7-11 and Par.47;1-8, when a handover is desired, the list of undesired cell identifiers are dropped from the measurement reports, so only the desired cell identifier remains), the cell site identifier corresponding to the terminal adaptor (Fig.1;210, the terminal adaptor, i.e. WLAN access point, is within the cell site).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio (U.S. Pub 2002/0147008 A1) in view of Byrne (U.S. Patent 5737703).

Regarding Claims 3 and 32, Kallio teaches all the limitations as recited in Claims 2 and 31, and Kallio further teaches the handoff request is received and the handoff instructions are provided using a cellular protocol (Par.49 and Par.50;1-4)

however Kallio **is silent on** while the establishment of the third connection is effected using a public switched telephone network-based protocol.

Bryne teaches that a cellular and another wireless communication system can use a public switched telephone network-based protocol to effect establishment of the third connection (Col.8;19-31 and Col.7;19-29). To the examiner, a WLAN and DECT communications systems are wireless systems, and with the combination of Kallio and Bryne, it would be obvious to one of ordinary skill in the art it envision handing off communications from a cellular communication system to another wireless communications system, according to Kallios teachings.

To one of ordinary skill in the art, it would have been obvious to modify Kallio with Bryne at the time of the invention such that the establishment of the third connection is effected using a public switched telephone network-based protocol, to provide a method of handing off communications from a cellular network to another wireless network (i.e. DECT) so that a user is not inconvenienced by poor reception or any interruption in service.

5. Claims 4-5 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio (U.S. Pub 2002/0147008 A1) in view of Jawanda (U.S. Patent 6243581 B1).

Regarding Claims 4-5 and 33-34, Kallio teaches all the limitations as recited in claims 2 and 31, and Kallio further teaches that there is a first media gateway (Fig.4;310) connected to the wireless switch via a cellular based trunk, however Kallio **is silent on** a second media gateway connected to the wireline switch via a

public switched telephone network based trunk, the method further comprising sending call initiation messages to the first and second media gateways and the wireline switch to establish the third connection.

Jawanda teaches that there is a second media gateway connected to the wireline switch via a public switched telephone network based trunk (Col.2:44-47, Fig.1:13 and Fig.1:22, PSTN or IP trunk is connected to the second gateway).

Kallio teaches that a call initiation message is sent along the path from the serving network to the target network (Par.49-50), so to a skilled artisan it would be obvious to do the same in the communication network of Jawanda such that the message would pass through the first and second gateway and the wireline switch to establish the third connection.

To one of ordinary skill in the art, it would have been obvious to modify Kallio with Jawanda at the time of the invention such that, a second media gateway connected to the wireline switch via a public switched telephone network based trunk, the method further comprising sending call initiation messages to the first and second media gateways and the wireline switch to establish the third connection, to provide a method for the gateways to convert the messages into the correct format before transmitting them to the other network so that the communications between the originator and the destination can remain stable and reliable throughout the handoff process.

6. Claims 6 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio (U.S. Pub 2002/0147008 A1) in view of Salmela et al (U.S. Patent 6181938 B1).

Regarding Claims 6 and 35, Kallio teaches all the limitations as recited in claims 2 and 31, however Kallio is **silent on** the third connection is established using a directory number associated with the mobile terminal when supported via the terminal adaptor.

Salmela teaches that it is well known in the art to use one primary number (i.e. mobile directory number) regardless of whether the terminal is located in one network or another (Abstract). To a skilled artisan it is obvious that the third connection would be established using the directory number of the mobile terminal when supported via the terminal adaptor.

To one of ordinary skill in the art, it would have been obvious to modify Kallio with Salmela at the time of the invention, such that the third connection is established using a directory number associated with the mobile terminal when supported via the terminal adaptor, to provide a method where a mobile terminal can roam between different networks that support subscriber mobility, which allows a call to be routed to the called subscriber terminal in the respective network.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L. Kim whose telephone number is 571-272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLK

A handwritten signature in cursive script, appearing to read 'W. L. K.', with a large, stylized 'W' and 'K'.A handwritten signature in cursive script, appearing to read 'George Eng', with a large, stylized 'G' and 'E'.

GEORGE ENG
SUPERVISORY PATENT EXAMINER